

# RESIDENTIAL INSPECTION GUIDELINES

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Inspections are required at various stages of each project and are outlined in the inspection guidelines below.

The following is a general guide to the builder, homeowner, or contractor utilizing the Residential Inspector of the City of Tucson Development Services Center. The format used will follow the Job Inspection Record, which each customer will receive upon purchase of a permit and which must be posted on the job site. Many of the different inspections can be done at the same time by the same inspector.

## **01005**

Building excavation-width and depth of the footings and the material being excavated to determine if of a suitable nature to support the structure being constructed. Grade pins or top of footing must be identified in trench.

Layout-the physical size and shape of the building covered by the building permit.

Rebar-the correct size reinforcing steel, which must be racked or supported to eliminate any movement of the reinforcing steel either during or after the concrete is placed (to be clean and free of rust or form oil).

Zoning-refers to the setbacks or dimensions required by the Tucson Zoning Code from the property lines to the building being constructed. The setbacks differ in the various zoning districts or areas throughout the City and may vary from nearby property. The property owner or contractor is responsible to see that the property pins are in place at time of inspection.

## **01010**

Foundation wall and rebar-is that wall constructed on top of the footing which usually defines the outside walls of the building and supports the exterior walls and confines the floor area. It usually contains reinforcing steel, which again must be held in place during the placement of the concrete into the forms; sometimes poured in monolithic form at the same time the footings and floor slab is poured.

## **01015**

Building floor, reinforcing (preslab)-is an inspection where the backfill, plumbing, mechanical ducts, and electrical conduit and any added interior footings for bearing structural support walls is checked. This inspection is done when the floor slab area is ready for the placement of the concrete and usually after the termite pre-treatment of the area under concrete. This inspection may be done by a special inspector - post tension or wrapped slab. Many times, the 1005 or 1010 inspection can be linked with the 2005, 2010, 3005, 3040, 4005 and sometimes the 3055 sewer or 2060 septic and allow the contractor/builder to work for a considerable length of time before having the inspector come to the job site.

*The 1005, 1010, 1015, 02005 inspections should be called in via IVR combination code 00005. The 03005, 03040 and 03055 inspections should be called in via IVR combination code 00010.*

**01020**

Reinforced Masonry Pre-Grout-is scrutinized either prior to or during the grouting operation to make certain all required reinforcing steel is properly installed and the grouting operations is taking place with the proper materials and methods. Wall reinforcing is usually installed where loads are to be imposed on the wall structure and may not always be in just the downward direction. This inspection must take place before any roof structure or second floor framing started or constructed and at 4 foot lifts *maximum*.

**01025**

Exterior Clip/Exterior Sheathing - this is an inspection function which assures that the outside skin of the building is installed per approved plans. All required exterior bracing, anchoring clips and hold downs are inspected at this time.

**01030**

Roof sheathing nailing-this inspection includes the roof structure as well as the sheathing and is done before any roof covering or asphalt materials are applied. This include the placement of all fasteners that make up the diagram to anchor the roof venting, crickets, etc., that may be required for the particular building being constructed. If prefab trusses are used an approved copy of the trusses must be on site.

**The 01025 and 01030 inspections may be called in for inspection via IVR combination code 0015.**

**01035**

Framing (pre-sheet rock)- done before any sheet rock or insulation is installed and after all of the requirements spelled out in the other intermediate inspections are installed, inspected and approved.

The framing inspection is a very complex inspection which is done to assure the structural integrity of the building and includes the proper nailing of the various members together, the proper installation of bracing, size, and anchorage of beams, fire blocking which is installed to prevent the spread of fire, proper window sizes to assure adequate light and ventilation of the building, and the size and location of windows in sleeping rooms that are required for both fire escapement and emergency rescue purposes.

*Note:* at this point all material used in the construction of any building or structure, must be a material which has stamped on it an identifying mark which indicates to the inspector that it is a material which has been approved by an approved testing agency and is used for the purpose for which it was intended. This identifying mark not only applies to the framing material, but also to all the plumbing materials, electrical materials and equipment, heating and cooling materials and equipment.

**01040**

Stucco Mesh - this inspection is made after the 01025 (exterior clip) has been approved. At this time the placement of moisture resistant membrane and mesh is inspected for compliance. When a one coat stucco system is used, the installation shall comply with the ICBO - International Conference of Building Officials- report. A copy of the stucco certificate for a one coat system shall be on site for the inspector at the time of the final inspection.

#### **01041**

U-Value for Windows - the windows used are inspected for compliance as required by the Model Energy Code.

#### **01045**

Drywall/Sheet rock - an interior wall covering which is inspected for proper nailing or fasteners and proper type of sheet rock, if used as a fire separation.

#### **02005**

Ufer ground-is a way of grounding service from the footing.

#### **02010**

U/G Electrical-Any underground electrical, electrical conduit or piping for the purpose of containing electrical wiring from one location to another. No direct burial of wire under structures is permitted.

#### **02035**

Rough Electrical-at this stage the inspector checks physical installation of wiring and electrical boxes, connections, wire sizes, routing, protection of wiring, placement of receptacles in rooms, and location of smoke detectors in conformance to the approved and amended National Electrical Code.

#### **2050 & 2060**

(2050) Electric Cable Drop (2060) Electric Temporary Service These inspections can be done anytime during construction. An electric service panel and a GFI receptacle need to be installed with proper grounding. These can either be an underground or overhead electric service.

#### **03005**

Rough Plumbing-Soil-these are the sewage drainpipes and the water lines which are placed in the area of the house and under the slab or floor area. A water test is required for soil piping and waste lines. Use only approved types of pipe and fittings.

#### **03040**

Plumbing Yard Water Line - these are the water lines that are placed from the meter to the house. At the time of this inspection these lines need to be under pressure - air or water.

#### **03055**

Plumbing Sewer - HCS Connection - Waste lines are inspected to ensure that the proper material is used and proper connection is made from the house to the main sewer line. A water test is required on this line.

### **03035**

Intermediate plumbing (top out)-the plumbing piping and water distribution piping above the floors and within the walls are checked for size and physical installation and protection from damage and includes the proper size venting and flashing of the piping through the roof.

### **03050**

Plumbing Gas Pressure Test - the gas line is inspected for type of material, sizing, and pressure test of 10lbs/15 minutes. Gas lines shall be secured to conform with Uniform Plumbing Code.

### **03060**

Septic System - The installation shall comply with all requirements of the Pima County Health Department and their approved plans. The depth and width of the drain lines and the installation of the septic system is inspected.

### **04005**

Rough Mechanical-if applicable, this refers to the return air ducts used in conjunction with the heating and cooling, usually with refrigerated air conditioning. Under ground, use only approved materials.

### **04035**

Intermediate Mechanical-combustion and relief heating and cooling ducts, exhaust vents such as water heater furnace vents, kitchen range vents, bathroom exhaust fan ducts, dryer ducts, pre-fabricated fireplace installations et cetera, are checked at this inspection for proper installation and insulation as required prior to being covered with the interior wall covering or sheet rock.

**The 01035, 01041, 02035, 03035, 03050, and 04035 inspections can be conducted at the same time, allowing the builder/contractor to complete more work before it becomes necessary to call for an inspection.**

**These inspections should be called in for inspection via IVR combination code 00035.**

### **01090**

Building-this inspection is of the final product as presented to the customer for occupancy and includes ingress/egress to the building, sprinkler systems, exit passageways, address number on house, and smoke detectors, and conformance with the approved plan submitted for construction. A gas card is left at the gas riser allowing the gas company to set and energize the meter.

### **02090**

Electrical-usually done at the time of the building final and checks out all electrical equipment, lighting systems, receptacles, panel boards, and service disconnects. The electrical inspector then releases a clearance to the power company to have electrical service released to the building.

#### **03090**

Plumbing-this inspection scrutinizes the final installation of all plumbing fixtures, proper venting of plumbing systems, proper cleanout capabilities, and lawn sprinkler systems for prevention of back flow.

#### **04090**

Mechanical-looks at the proper installation of heating, ventilating, air conditioning facilities and pre-fabricated fireplace installations.

### **REQUIRED INSPECTIONS FOR SWIMMING POOLS AND SPAS**

#### **08005 08030 08035**

08005 Pool/Spa Preguniute, 08030 Pool/Spa Plumbing, 08035 Pool/Spa Electrical - these inspections should be done simultaneously. The pool location, steel size and placement is inspected under 08005. The plumbing is inspected for type size and location of circulating lines. Plumbing lines shall be under pressure either air or water under 08030. The electrical wiring, equipment and motors are inspected for wire size, raceway placement, proper grounding of equipment, motor and pool steel reinforcement under 08035.

#### **08040**

Pool/Spa Gas. Gas lines are inspected for type of material, location, size and pressure tested 10lbs/15 minutes under 08040.

#### **08045**

Pool/Spa Heater. This inspection is typically done at the final pool inspection. The heater location, size, electrical, and gas hook up are inspected for compliance with manufacturer's specifications and National Electrical Code.

#### **08090**

Pool/Spa/Swimming Pool Barrier - The completed pool, equipment and pool enclosure/barrier are inspected for conformance with the approved plans and the Swimming Pool Code.